

*K. Gt. Britain and Ireland. Incl. Rev. Mr.
England. - Board of Inland Revenue
etc.*



INSTRUCTIONS

To be observed by the

OFFICERS

Concerned in ascertaining the

DUTIES on GLASS.



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115

239 48
74 26
270 149 1/2

INSTRUCTIONS

To be obtained by the

OFFICERS



Concerned in ascertaining the

DUTIES OF CLASS.

INSTRUCTIONS
To be Observed by the
OFFICERS
Concerned in ascertaining the
DUTIES on GLASS.



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INSTRUCTIONS

TO BE OBSERVED BY THE

OFFICERS



OF THE

BRITISH MUSEUM



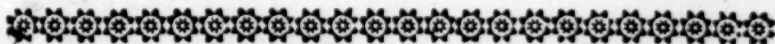
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AT THE



A
DESCRIPTION
OF THE SEVERAL
SORTS of GLASS.
WITH SOME USEFUL
OBSERVATIONS thereon.



THE Materials and Preparations
used for making the various
Sorts of GLASS, and also the
Manner of Manufacturing
them, are different; the Time
required to found, melt, and fine the Mate-
rials for each Species of Glass, after they are

prepared, mixed, and put into the Pots placed into the Furnace, somewhat uncertain, but commonly as set forth under their respective Denominations.

Crown Glass Materials consist of Kelp, Barillia, Pot-Ash, Lynn-Sand, Cullet, &c. which require from twenty-four to thirty Hours to found, melt, and become fit to manufacture into Glass, and are calcined some Time before used, and generally put cold into the Pots, which are of the open Sort, and consist of four in a Furnace: The Manufacturers generally give Notice to fill all the Pots at one and the same Time, and, when in full Work, make four Journeys in a Week. This Glass is blown in globular Form, and, by the Art of Flashing, is flattened into a circular Table, then put into an Oven to anneal.

GLASS thus made has always been deemed CROWN GLASS.

PLATE GLASS is made from Barillia, Salt-Petre, Lynn-Sand, Cullet, &c. The Materials are put into the Pots cold, which are of the open Sort, and require upwards of 30 Hours to melt and fine before fit to Work: the Manufactures

nufacturers work three Journeys in a Week, and declare to fill all the Pots at one and the same time.

This GLASS is made into Plates of various Sizes, and put into an Oven pretty hot to flatten, then removed from thence, into one more moderately heated, to anneal.

FLINT GLASS Materials are *Salt-Petre*, *Red-Lead*, *Lynn-Sand*, *Arsenick*, &c. which are melted in capped or covered Pots, 6 or 8 in a Furnace, some of which are several Days in working out, and generally filled only once a Week, though, at some Houses they fill and work some twice a Week ; but it is customary to declare for Filling them all in the latter End of the Week, to have them all full against the beginning of the next.

The Materials for this GLASS mostly require upwards of 40 Hours to become fine and fit to work ; and as the Metal is manufactured into GLASS, it is put into the Lear to anneal for use.

In FLINT GLASS Houses there is likewise a Metal prepared for making *Apothecaries* Phials, &c. which are under the Denomination

nation of WHITE GLASS, and is to be charged after the rate of 9 s. 4 d. per Hundred weight, being made from the refuse or waste in crown and plate Houses and flint Moils with *Sand, Ashes, &c.* which are generally near 30 Hours in melting, &c. before fit to work, save in small Pots. And there is likewise made Enamelled, and Stained or Coloured GLASS of various Colours, at *Black, Green, Blue, &c.* which are chargeable with the like Duty as FLINT GLASS.

BROAD GLASS is made from *Kelp, soft Soapers or Whitsters Ashes, Cullet*, and various Sorts of *fresh Ashes and Sand*; the Materials are generally put hot out of the Calcer into the Pots, which are of the same Sort used for CROWN GLASS, and are near 18 Hours in becoming fit to work: The Artificers are mostly 10 Hours in Working two Pots for a Journey, and work five Journeys a Week. This GLASS is blown in a Conical Form, and opened upon a convexed Body of Clay, covered with Sand in a hot Oven, usually called a Strokall, and then flattened on an Iron Plate, and put into a Kiln or Oven to anneal.

GLASS

G L A S S under this Denomination, from the different Qualities, Proportions, and Calcining of the Materials, and Powders adapted for tinging of **G L A S S**, is frequently made of equal Colour and Goodness to some **C R O W N G L A S S**; consequently is under the Denomination of White **B R O A D G L A S S**; therefore all Materials for making such **G L A S S**, of a better Quality than common Bottles, are to be charged at the Rate of *9s. 4d. per Hundred Weight*, and those for making coarse **G R E E N G L A S S**, at the Rate of *2s. 4d. per Hundred Weight*.

C O M M O N Bottles are made from *Kelp, hard Sopers Ashes, Lime, Wood Ashes, Cullet, Iron Scurf or Sleek, and coarse Sea or River Sand*, which are mixed and put into a Calcar adjoining the Furnace to heat, and from thence removed hot into the Pots in the Furnace, and are generally 12 or 14 Hours in founding and becoming fit to work: The Pots consist of four in a Furnace, and commonly charged with Materials at one and the same Time, which they work out in 9 or 10 Hours, and usually work six Journeys in a Week.

I N melting the various Materials for mak-

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ing the several Sorts or Kinds of GLASS, as Salt or Sandiver ariseth on the Surface of the Metal, which cannot be manufactured into GLASS, until such Salts or Sandiver are either taken off the Metal by a Scummer, or evaporated by the Fire, which generally requireth 18 Hours for CROWN and PLATE GLASS, near 24 Hours for FLINT GLASS, 12 or 14 Hours for BROAD and PHIAL GLASS, and 8 or 9 Hours for common Bottles, from the Time of charging the Pots for the respective Sorts of GLASS.

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THEREFORE whenever you Survey any *Glass-maker* near the Time of Filling and Charging, you are carefully to inspect, whether the Pots be charged with the usual Preparations for making of GLASS, commonly called *Frit* or *Cullet*; if with the former, which is easily perceived from its frothing up in the Pots, and the Fire drawn from the annealing Ovens used the preceding Journey, there is no Circumstance for a Defraud being intended; but if charged with the latter, which melteth in a short Time, and doth not froth up in the Pot, and the Fire not damped or drawn

drawn from the said Ovens, nor their Mouths built up, a Fraud may reasonably be suspected.

AT FLINT *Glass-houses* they have a greater Opportunity to carry on Frauds than at other Houses, from the Number of Pots in their Furnaces, as they often work out Part of a Pot, and let it stand, and when they have an Opportunity, in the Absence of an Officer, can set on many Hands, for quick Dispatch, to nearly work out such Pot, while the others are resting, and supply it again with *Cullet*, and bring the Fluid Metal to the same Quantity as before. In which Case, if suspected, they pretend it is turned foul, and must be refounded.

IT hath likewise been observed, they may impose on Officers, by charging some of their Pots apart full, chiefly with *Cullet*, which will be soon fit to work, by working out such Part of a Pot, and charging it a-new, from their Custom of stopping up the Mouths of the Pots, and the Lear being constantly in Use after any of the Pots are opened; but such Frauds may be detected, by making quick Returns and careful Observations.

YOU

YOU are therefore directed to examine and endeavour to discover, whether any such Practices are used ; and where you find any such Practice, or just Cause to suspect such Frauds, from your Observations of the GLASS manufactured in the Lear, or otherwise, you are to make a new Charge upon such *Glass-maker* ; and he, if aggrieved, may discharge himself by due Course of Law.

AS to some Crown and Plate *Glass-houses* they begin Work on one Pot only, at others on two, and at Broad Houses they begin only on one Pot, as they only work two Pots each Journey, you are therefore carefully to examine all the Pots on every Survey, at each of these Houses, to discover whether an unusual Part of the Metal is not left in some of the Pots, which they have been at work upon, in order to increase it with *Moils* or *Cullet*, which would be fit to work against the Time they have finished the other Pots. As Broad *Glass-makers* only work two Pots each journey, and the other two Pots are sometimes of equal Forwardness for working, particularly on the first Journey in the Week ; you are therefore carefully to observe, that no Part of the two
Pots,

Pots, intended for the succeeding Journey, be wrought out and filled again without Notice.

AT Bottle *Glass-houses* they generally begin on all the Pots at one and the same Time, and finish them before they leave Work; but if they respite the Work, whereby they can only found 4 or 5 Journeys a Week, there is Reason to suspect it to be done with a Design of Fraud, by adding *Moils* or *Cullet*; such foul Practices may be prevented by unexpected Returns, and the following Observations.

WHEN fresh Materials have been added to increase the Metal in any Pot, if not discovered before melted, it may be perceived from the Surface of the Metal, which will retain a Scurf upon it, and when touched with an Iron Rod, will feel hard, and when broke, the Rod will suddenly rush into the Metal; but when they have been so long in the Pot, as to incorporate with the other Metal, the Stiffness and Scurf will not appear, but by taking a little out upon the Rod, you will perceive it foul, and full of *Beils*, as not fit for working.

IT

IT hath also been a Practice to pound or grind GLASS small, and put it into one Side of the Pot, and cover it with the Fluid Metal, to prevent both the Appearance of the Scurf and Swiftneſs; whenever you ſuſpect ſuch Practice, you will eaſily detect it, by putting the Iron Rod to the Bottom of the Pot; and if any *Cullet* hath been added in that Manner, it will feel hard at the Bottom, and the Rod will bring up Part of the unrefined Metal.

IT is alſo neceſſary to obſerve the Moils and waſte Metal in the Sole and Calcar, to diſcover whether there be any Reason to ſuſpect ſuch foul Practices, that they may either be detected or prevented.

YOU are carefully to obſerve the Poſition of the capped Pots in FLINT *Glaſs-houſes*, to diſcover whether the Trader doth not cauſe them artfully to recline into the Furnace, whereby they will hold more Metal than if they ſtood upright; which may be perceived by chalking the Top Diameter of the Pot on an Iron Rod, and comparing it with the Diameter at the Surface of the Metal when the Pot is full; you may eaſily perceive if ſuch Art is practiſed, and alſo if a larger Pot be ſet into the Furnace than you have

have gaged. You are likewise frequently to inspect the Mouths of such Pots when first opened, lest Metal or Clay be daubed thereon, to cause them to be of greater Depth, and hold more Metal than gaged at; and it will be necessary, when you have Reason to suspect Frauds, to insert the dry Inches of the Pots taken perpendicular or slant, instead of the fractional Parts in your Book, to denote their Condition when at Work, in order to discover whether any Increase be made on your succeeding Visit, and use the best of your Skill in making such other Remarks as may conduce to the Service of the Revenue, and not survey in a cursory, careless Manner, but with such Care and Circumspection, as you may not be imposed on; for it is expected that you should use your utmost Diligence to prevent or detect all Frauds in *Glass-houses* under your Care.

General

General Orders

Oath.

I. **B**EFORE you intermeddle in your Office, or be impowered to make a Return, or Charge, upon any *Glass-maker*, you are to take the Oath of Office before all or any of the Commissioners of Excise, or any of His Majesty's Justices of the Peace, who will give you a Certificate thereof, which you must send to the Auditor of Excise, at the Excise-Office, *London*.

Y O U are to reside at such Place in your Division or Ride, as your Collector and Supervisor approve of, in order to secure this, as well as other Branches of the Revenue under your Care.

Entries.

II. **E**VERY *Glass-maker* is to make Entry in Writing at the proper Excise-Office, of all their Furnaces, Pots, Pot-Chambers, Warehouses,

Warehouses, Rooms and other Places for making or keeping of GLASS, or of Materials mixed and prepared for making of GLASS, which you are to copy, according to the Directions given in the Excise Instructions, and in the Front of your *Glass-Book* insert a Scheme of all such entered Houses, Rooms, &c. and mark the Particulars in such Manner as may enable you, your Supervisor, or any other Person, readily to find the same.

Dimension Book.

III. YOU are to keep by you a Dimension-Book, wherein must be entered the Numbers and Dimensions of all your *Glass-makers* Pots for melting Materials for making of GLASS, viz. their Depths and Diameters, taken at proper Places, and from those Dimensions the Area's and Content of each Pot must be truly calculated and tabled, agreeable to the Precedent in these Instructions, which are to be examined by your Supervisor the first Opportunity. The Pots are to be gaged in the

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Pot-

Pot-Chamber so soon as thoroughly dry; and when one Area will not serve for the whole Depth, Dimensions must be taken in the Middle of every ten Inches from the bottom upwards, or in any other requisite Part of the Depth, in Pots that vary much in their Diameters; and when they are intended to be annealed, you are to regage such Pot or Pots, and if you find any Disagreement with the former Dimensions, the latter are to be made Use of, which you are instantly to enter in such Dimension Book, and cancel the former.

In calculating the Content of each Pot, you are to make the following Allowances for the respective Sorts of GLASS, in Consideration of their Shrinking, waste Metal in manufacturing of GLASS, and the Metal left in the Bottom of each Pot, *viz.* in Flint and Phial Pots, one Fourth of the Area and one Inch in the Bottom: For small Pots under the Denomination of Pile-Ends, two Tenths of the Area only is sufficient. In Crown, Plate, and broad GLASS Pots, one Fourth of the Area's, and four Inches in the Bottom. In Bottle Pots, one Fifth of the Area's, and three Inches at Bottom.

But

But whenever you are sensible that the Metal from the Bottom of any Pot is removed into another, you are to charge the Allowance given in Consideration of such Metal.

WHEN you gage Pots in the Pot-Chambers, you are to mark them numerically, and insert such Number in the Dimension Book, to the respective Pots Dimensions, also the Date of each Pot, or private Mark, inserted thereon by the Maker; but this Observation ought to be concealed from the Trader, whereby you or your Supervisor may be enabled, either when such Pot is setting in the annealing Arch, or at any other Time, to distinguish the same in order to regage it; and to prevent the Trader's using larger Pots than have been gaged, as the Law enjoins all Traders to give Notice to the Officer before they use any Pot or Pots for the preparing or making of GLASS, you are to require the Trader to comply therewith; and for a further Prevention of such frauds, the Top Diameters of all Pots are to be inserted in the Dimension Book, agreeable to the Precedent; and you are to express therein the Time when each Pot took Place, and when broke. You are to number the working Holes in each Furnace, beginning on
the

the Right Hand, at the usual Entrance into the *Glass-house*, and each Pot is to be surveyed, and entered into your Survey Book, agreeable to those Numbers, and the annealing Ovens are to be numbered and surveyed in the like Manner.

N. B. *By proper Experiments it hath been found, there are in an Averdupoize Pound*

Wt. of	{	Flint Glafs	- -	08. 46	} Cubic
		Plate Glafs	- -	09. 178	
		Crown & Broad Glafs		10. 516	
		Phial & Bottle Glafs		10. 178	

Inches, consequently the circular Divisor will

be, for	{	Flint Glafs	- -	10. 77	} & the
		Plate Glafs	- -	11. 68	
		Crown & Broad Glafs		13. 39	
		Phial & Bottle Glafs		12. 96	

circular Gage- Points for	{	Flint	- - - -	3. 28	}
		Plate	- - - -	3. 42	
		Crown and Broad	-	3. 66	
		Phial and Bottle	-	3. 60	

Directions

Directions for keeping Glas Books.

IV. Y o u are to transcribe from your Dimension Book, into every new Survey Book, the Area's and Dephs of each Trader's Pots in the Furnace, also the odd Pounds ; the last Surveys and depending Declarations must be transcribed from the old Book to the respective Traders Names in the new ; and you must insert over each Pot, in the transfer Survey, the identical Species on the last Survey in the old Book.

T H E Characters for denoting the Condition of the Materials and Preparations in the Pots, are to be agreeable with the Example in the Precedent for Book-keeping.

W H E N E V E R a Pot is broke, and likewise when you receive Notice for any new Pot, you are to signify so at the end of your Survey ; and when any new Pot is set into the Furnace, the Deph and Area's are to be inserted in the proper Column over the first Survey you make of such Pot ; and when the Declaration for any Pot doth alter, you are
to

to signify from whence it proceeds, whether from a Variation of its Position, or some Accident of a Crack, &c. If you happen to make any Mistake, either in entering any Character, or Particulars of a Declaration, or any otherwise, you must cancel it by a small black Line, and signifying what it should be, and on each Survey, before you leave the House, you are to enter the Condition of it in your Book ; and you are to keep a Specimen Paper in each *Glass-House*, whereon you must enter your Surveys, according to the Specimen hereunto annexed.

Notices.

V. EVERY *Glass-maker* is, by the Space of 12 Hours next before the beginning to fill or charge any Pot or Pots with Materials for making of GLASS, to give to the Officer of the Division or Place where such GLASS is intended to be made, Notice in Writing of the particular Time and Hour when, and at which such Filling or Charging is intended to be begun, with an account of the true Weight of the Metal or Preparation to be made use of, and the Species of GLASS so to be made ; and in case such intended Filling or Charging of such Pot or Pots, whereof such Notice shall

shall have been given, shall not be begun pursuant to such Notice, the said Notice is void, and the *Glass-maker* must not begin to fill any Pot or Pots, for making of GLASS, without giving a new or other like Notice as aforesaid.

As soon as ever you have received a *Glass-maker's* Notice, you must enter it in your Book, viz. the Time of Beginning to fill or charge, and the Weight of the Materials, under their respective Denominations, according to the Method prescribed for Book-keeping, and make a remark thereof at the End of your Book, viz. the Time you received the Notice, the *Glass-maker's* Name, the Number of Pots, and Time of beginning to fill, and transcribe the same into your Journal, amongst your other Remarks; and when any *Glass-maker's* Notice is delivered to you after Ten in the Evening, you may defer entering it in your Journal till next Morning, but you must not fail entering it then, so soon as you can, and put the Declaration on a File for that Purpose.

IF at the Hour declared for Beginning to fill or charge, you have Reason to believe the declared Weight will amount to the Content of

of the Pot within one Inch in Flint Houses, and two Inches of being full in other Houses, when a proper Allowance is made for the Pot not standing upright, and for an Accident of a Crack, &c. in the Pot, according to the Directions hereafter given, you need not weigh the mixed Materials; but where the Trader will not comply in making such true Declarations, you are to insist on weighing all the mixed Materials before they are put into any Pot or Pots, and you or some Officer must attend from the Time of Charging till the Journey is finished.

You must be careful to keep the *Glass-maker's* up to their Declarations, and to all other Parts of their Duty, and when they neglect or refuse to perform the same, or when you discover any Fraud, you are to acquaint your Collector or Supervisor therewith, that they may be prosecuted as the Law directs.

THE fall of the Pots is to be found by the following Method, by which you may know if the Traders make true Declarations.

SUBTRACT the dry Inches of the low Side from those of the high Side, and the Half of the Remainder is the Fall of the Pot, near enough in Practice.

Surveyors

Surveys.

VI. You are to survey every *Glass-House* in your Division near the Time declared for beginning to fill or charge ; however you must not exceed three Hours after the Time declared, that you may discover whether the *Glass-maker* has begun to fill or charge any Pot or Pots before the Time mentioned in his Declaration ; also whether the Pots be charged with *Frit* or *Cullet*, if with *Cullet*, and the Fire not drawn from the annealing Ovens used the former Journey, you may be sure a Fraud is certainly intended, and you are to make quick Returns, in order to prevent or discover it ; but if with *Frit*, than at Crown and Plate *Glass-houses* your second Survey is to be near 18 or 20 Hours after the Time declared for charging, and your other Surveys are to be made cautionary, until the Time for beginning to work, when a Survey must be made, in order both to gage the Metal, and examine the annealing Ovens, to discover if any GLASS hath been made since last Journey. And at Broad and Bottle *Glass-houses*, your second Survey is to be at or near the Time for beginning to work, both to gage the Metal, and observe the Condition of

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the annealing Ovens; and whenever your other Business will not admit of Surveying at such Times precisely, if you Survey an Hour or two after, you may easily discover from the Quantity of GLASS set into the Ovens, and Decrease of Metal, whether any Fraud hath been committed. You are likewise to survey both these, and Crown and Plate *Glass-houses*, two or three Times whilst at work, by sometimes making sudden Returns, to prevent the returning of *Moils* or *Cullet* by respiting the Work.

AT Flint *Glass-houses* you are to survey four or five Times a-Day, by frequently making sudden Returns, and sometimes as early in the Mornings and as late at Nights as possible, whereby you may both prevent the running any Pot or Part thereof upon you, or increasing the Metal in any Pot by waste GLASS or *Cullet*, and likewise have an Opportunity of taking Gages of the fluid Metal.

As all *Glass-makers* from the Nature of their Works are obliged to prepare their Materials for working on *Sundays*, you are therefore on those Days to make Visits at proper Times to prevent Frauds.

N. B. As the chiefest Security of the Duty depends upon due Attendance and Circumspection on Survey, you are on every Journey or Filling on each and every Pot, to observe that the Species of GLASS be agreeable to the Trader's Declaration; and when you discover the Species of GLASS, made out of any Pot to be
White,

White, which was declared for Green GLASS, you are to charge the Whole of such Pot as White, and you are to take a small Specimen of such Metal out of the Pot, and also a Sample of the waste GLASS when annealed, to support such Charge against the Trader, and acquaint your Collector and Supervisor therewith, for the Board's Directions therein. You are likewise, on each Survey you make, to have a particular Regard both to the Quantity and Condition of the Metal in each Pot, by examining it yourself with an Iron Rod, and not to depend on any Account which may be given you; and if you are opposed in so doing, it will be deemed an Obstruction in the Execution of your Office; and where from any Circumstance you have Reason to suspect any foul Practice, you are immediately to advise your Supervisor thereof, and consult with him for preventing or detecting it.

WHEN any Filling or Charging is an unusual Time either in founding or working, you are to set forth the true Cause thereof.

Charges.

VIII. WHEN you weigh the Metal and Materials mixed and prepared for any Journey, or Notice for making of GLASS, before the same shall be put into any Pot or Pots, the Charge is to be made from such Weight, unless the amount of your Gages, taken in such Pot or Pots, without the aforementioned Allowance,

lowance, in the Area or Inches at the Bottom of each Pot, exceed the said Weight, then the charge is to be made from the Amount of your Gages so taken. But when the Materials, &c. are not by you weighed, before they are put in the Pot or Pots, you are to make the Charge from the amount of your Gages taken of the fluid Metal in the respective Pots. And whenever it so happens that any Part of the Metal in any Pot or Pots hath been wrought, before you have taken proper Gages thereof, you are then to make the Charge from the Trader's Account of the Weight of the Metal, or Preparation to be made Use of, for the making of GLASS in such Pot or Pots as given in his Declaration or Notice, unless the Total of your Gages then taken of such Pot or Pots, exceed the declared Weight. In such Case you are to acquaint your Collector and Supervisor therewith, in order to obtain the Board's Directions for an Information to be laid against such Trader, for making a false Declaration.

Rides.

IX. WHEN you are employed in a Ride, and the *Glass-house* situated in or near the Residence, which must be so ordered, if other Business will possibly admit thereof, you are to endeavour to contrive your Surveys, so that your Visits be at Times when you may best detect or prevent Frauds, particularly, if possible, near the Time of charging and beginning to work, and as often when at Work as you can, for the Purposes beforementioned.

Directions

Directions for coursing Surveys.

X. You are to survey every *Glass-house* under your Survey once in your Course, or oftner if necessary, not failing to contrive your Visits, as directed for distinct Divisions. The Characters for denoting the Condition of the Materials and Preparations in the Pots, and the Methods of your Survey-Book, are to be conformable to the Precedent set apart for your Direction. When your Time of Surveying commenceth, you are to repair to the Excise-Office, or where your Supervisor shall appoint, for a Journal and Leidger to be kept, in order both to enter in the Journal the Time of your coming on Duty, according to the Method hereunto annexed, and to observe from the Leidger when proper Surveys are to be made ; and at or before the Expiration of your Course, you are to transcribe from your Minute-Book into the Leidger, your Surveys in the same Method as if you surveyed in that Leidger, signing the two initial Letters of your Name to each Survey, and cast up your Gages, and set forward the Charges for such Survey. You to observe all other Directions and Injunctions in these Instructions, as if they were fully repeated here.

Broken Pots.

XI. WHEN a Pot or Pots happen to crack or break in the Furnace, whilst the Materials are in such Pot or Pots, with an Intention to be made into GLASS, whereby the Whole or some Part of the said Materials are lost, or become
unfit

unfit for the making of GLASS, by the Crack-
ing or Breaking of such Pots, and hath been
gaged, and charged with the Duty, you are
to enter an Estimate as near as you can of the
Quantity of Metal so lost or run out, and
charged as aforesaid, in a Scheme at your
Book-End, immediately before your Remarks,
as set forth in these Instructions for that Pur-
pose, which may be computed by observing
in what Part of the Pot the Hole or Crack is,
or the number of Hours they had been at
Work upon such Pot. But you are not to
make any Allowance for such Loss, but an
Account thereof upon Oath must be sent to
the Board by the Collector, which must be
attested by your Supervisor and you, if you
have sufficient Reason to believe it to be true.

As to the entering a Scheme of your Di-
vision, and the Amount in the Front of your
Book, keeping your Instructions at the End
thereof, your Forbearance of erasing, alter-
ing, or obliterating any Figure or Character,
entering any feigned Surveys, receiving of
Duty, or taking up Arrears, without the Col-
lector's Directions, with what other In-
junctions or Restrictions are in the Excise,
or any other Instructions which may be ap-
plicable to this Duty, and are not herein par-
ticularly expressed, you must in every Respect
observe and comply with, as if they were fully
repeated in the Body of these Instructions.

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The Scheme of a Dimension Book.

	Diameters.	Depths	Diam ^{rs} retaken	Depths retaken	Diameter before annealed.	Depths before annealed
N ^o 1. C. P. Sept. 10, 1748						
Regaged June 26, 1749. T.P.	24.3	24.2	24.5	24.2	24.4	24.2
Set into N ^o 1, July 6						
Top Diameter	23.0	—	23.0	—	23.0	—
N ^o 2. Aug. 14, 1748						
Regaged June 26, 1749. T.P.	22.4	20.7	22.6	20.7	22.5	20.7
Set into N ^o 2, July 5						
Top Diameter	22.0	—	22.0	—	22.0	—
N ^o 3. C. H. Aug. 20, 1748						
Regaged June 26, 1749, T.P.	26.5	23.4	—	—	26.5	23.4
Set into N ^o 2, July, 17						
Top Diameter	26.0	—	—	—	26.0	—
N ^o 4 I. B. Aug. 4, 1748						
Regaged June 26, 1749. T.P.	23.8	21.0	—	—	23.7	21.0
Set into N ^o 2, July 5						
Top Diameter	23.1	—	—	—	23.0	—
N ^o 5. P. H. Aug. 20, 1748.	36.0	06.	36.0	06.5	36.0	06.4
Regaged June 1, 1749, T.P.	32.0	10.	32.3	10.	32.2	10.
Set into N ^o 4, June 29	29.4	10.	29.5	10.	29.4	10.
	25.2	10.	25.5	10.	25.5	10.
Top Diameter	38.0	36.0	38.0	36.5	38.0	36.4
N ^o 6. H. M.	34.7	07.	—	—	34.5	07.
Regaged June 1, 1749. T. P.	32.5	10.	—	—	32.5	10.
Set into N ^o 5, June 26	29.8	10.	—	—	29.8	10.
	27.2	10.	—	—	27.2	10.
Top Diameter	37.0	37.0	—	—	36.5	37.0
N ^o 7. D E Aug. 2, 1748.	38.0	04.	38.0	06.		
Regaged July 1, 1749. T.P.	34.2	10.	34.5	10.		
	30.5	10.	30.7	10.		
	28.3	10.	28.1	10.		
Top Diameter	39.5	34.0	39.5	36.0		
N ^o 8. N. M. Aug. 3, 1749.	34.0	06.	—	—	33.8	06.
Set into N ^o 4, July 20	30.7	08.	—	—	30.5	08.
	28.8	0.	—	—	28.8	10.
	26.5	10.	—	—	20.5	10.
Top Diameter	35.0	34.0	—	—	35.0	34.0

DIRECTIONS for Tabling of Pots.

N ^o 1)			N ^o 1 Flint.			N ^o 4.)			N ^o 2 Flint						
24.2	Area.	Neat Area	Depth	Pounds Weight	C.	qr	Pounds	21.0							
24.4	55.28	41.46	24.2	1003.3	8	3	2	23.7	52.15	39.12	21.0 821	7	1	9	
One Inch allowed for Bottom					0	1	13	One Inch allowed for Bottom					0	1	11
					8	2	10						6	3	26
Dry Inches					1	8	0 24						1	6	2 5
					2	7	3 12								
					3	7	1 26								
July 6. New					4	7	0 13	July 5. New							
								July 16. Broke							

N ^o 3.)				N ^o 2 Flint				N ^o 2.)				N ^o 3. Flint			
23.4								20.7							
26.5	65.20	48.90	23.4	1144.2	10	0	24	22.5	47.00	35.25	20.7	722.6	6	2	1
One Inch allowed for Bottom					9	1	21	One Inch allowed for Bottom					0	1	7
					9	3	3						6	0	22
				1	9	1	10					1	5	3	15
July 17. New								July 5. New							

T S.

N° 5.)

N° 4. Bottles.

N° 8.)

N° 4. Bottles.

36.4

36.0	10000	80.00	06.	480.0	4	1	4
32.2	8000	64.00	10.	640.0	5	2	2.4
29.4	6669	53.35	10.	533.5	4	3	1.5
25.5	5017	40.14	10.4	417.4	3	2	25.4

30.4 | 2070.9 | 18 | 1 | 26.9

Three Inches allowed for Bottom

1 | 0 | 8

17 | 1 | 18.9

1 | 16 | 2 | 22

2 | 15 | 3 | 26

3 | 15 | 1 | 2

4 | 14 | 2 | 6

5 | 13 | 3 | 11

6 | 13 | 0 | 14

7 | 12 | 2 | 6

8 | 11 | 3 | 66

June 29. New

July 18. Broke

34.0

33.8	88.15	70.52	06.	423.1	3	3	3.1
30.5	71.77	57.42	08.	459.3	4	0	11.3
28.8	64.00	51.20	10.	512.0	4	2	8.
26.5	54.17	43.34	10.	433.4	3	3	13.4

34.0 | 1827.8 | 16 | 1 | 7.8

Three Inches allow'd for Bottom

1 | 0 | 18

15 | 0 | 17.1

1 | 14 | 2 | 03

2 | 13 | 3 | 16

3 | 13 | 1 | 2

4 | 12 | 2 | 15

July 20. New

N° 6.)

N° 5. Bottles

37.0

34.5	91.84	73.47	07.	514.7	4	2	10.2
32.5	81.50	65.20	10.	652.0	5	3	18.
29.8	68.52	54.82	10.	548.2	4	3	6.2
27.2	57.07	45.66	10.	456.6	4	0	18.6

37.0 | 2171.0 | 19 | 1 | 15

Three Inches allow'd for Bottom

1 | 0 | 25

18 | 0 | 18

1 | 17 | 2 | 0

2 | 16 | 3 | 11

3 | 16 | 0 | 21

4 | 15 | 2 | 4

5 | 14 | 3 | 15

June 26. New

E

The Explanation of the Dimension Book, and Directions for Tabling of Pots.

IN the first Column in Page 31, is entered on the first Line, the numerical Number of the Pot, *viz.* N^o 1. the Letters *C. P.* and *Sept. 10, 1748*, are inserted on the Pot by the Maker, whereby you may distinguish from the others. The second Line contains the Time when regaged by the Supervisor, and the two initial Letters of his Name. The third Line shews what Hole in the Furnace such Pot is placed in, and Time when. In the second and third Columns are the Diameter and Depth of such Pot when gaged in the Pot-Chamber. The fourth and fifth Columns the Dimensions of such Pots, when they differ from the Officers. In the sixth and seventh Columns the Dimensions when they are going to be annealed. Under the Diameters is inserted the Diameter of such Pot taken at the Top, to discover if a larger Pot is not set into the Furnace, by chalking such Diameter on an Iron Rod, and comparing it with the supposed Pot when in the Furnace. The following

ing Dimensions, &c. are to be understood in the like Manner. In Page 32, at the Top, is entered N^o 1. which is for the first Hole in the Furnace, and the Word FLINT denotes the Content of such Pot to be calculated for *Flint*. In the first Column is entered the Diameter of the Pot, and over it the entire Depth. In the second Column the Area for that Diameter. In the third Column is the neat Area by an Allowance of one Fourth in the preceeding Area. In the fourth Column is the Depth for such Area. In the fifth Column is the Content in Pounds Weight. In the three last Columns is the Content of that Pot, reduced into Hundreds, Quarters, and Pounds, from whence is deducted the Allowance for the Bottom of such Pot, which produces the neat Content, then the Pot is tabled to four Inches dry.

The Columns for the other Pots are to be understood as thus explained.

The Pot in the second Hole being broke *July* 16, is cancelled, and supplied by N^o 3. *July* 17. and the Pot in the fourth Hole being broke *July* 18, is likewise cancelled, and supplied by N^o 8. *July* 20.

LIVER-

LIVERPOOL, *Mr. Samuel Ogden, and Co.*

34.2 21.0 20.7 36.4 37.0

1 2 3 4 5 1 2 3 4

1756	Time of Charging				80.0	73.5	Anne	aling	
July					64.0	65.2	Oven	s.	
		41.4	39.1	35.2	40.1	45.6			
14 N n	15 M 4	F	F	W	O	O	F	O	F
14 E 8		$\frac{1}{2}$ F	$\frac{1}{8}$ F	$\frac{1}{8}$ F	O	O	F	O	F
15 M 6	15 E 6	Ch	Ch	Ch	O	O	F	O	O
15 M 11		Ch	Ch	Ch	O	O	dr	O	O
15 E 6		Ch	Ch	Ch	Ch	Ch	O	O	O
15 E 9		Ch	Ch	Ch	Ch	Ch	O	O	O
16 M 5		M	M	M	M	M	O	O	O
16 E 11	17 M 11	M	Br	M	02.0	03.0	pr	O	pr
17 M 5		M	⊙	M	$\frac{2}{3}$	$\frac{2}{3}$	fillg	O	fillg
17 M 8 to M 9	17 E 9	01.0	⊙	M	$\frac{1}{8}$ B	$\frac{1}{4}$ B	D°	O	D°
17 M 11		$\frac{3}{4}$	⊙	M	Ch	Ch	F	O	F
17 E 7		$\frac{2}{3}$	⊙	01.0	Ch	Ch	F	O	F
17 New				48.9	depth (2	3.4)			
17 E p 9	18 E 1	$\frac{2}{3}$	Ch	P	M	M	drg	pr	F
18 M 2		$\frac{2}{3}$	Ch	$\frac{3}{4}$	08.0	05.0	O	D°	O
18 M 7		11.0	Ch	12.0	$\frac{1}{3}$	$\frac{1}{2}$	O	fill	O
18 M 10		04.0	Ch	12.0	$\frac{1}{3}$	$\frac{1}{3}$ B	O	D°	O
18 E p 3	19 M 4	04.0	Ch	$\frac{1}{2}$	Bro	Ch	O	F	O
18 E 10		04.0	M	⊙	M		pr	F	O
19 M 4	19 E 4	$\frac{1}{2}$	M	Ch	⊙	05.0	D°	F	O
19 M 11		$\frac{1}{4}$	F	Ch	⊙	$\frac{1}{4}$	fillg	F	O
19 E 1		$\frac{1}{4}$	P	Ch	⊙	$\frac{1}{4}$ B	D°	F	O
19 E 7		$\frac{1}{4}$	3/4	Ch	O	Ch	F	O	O
20 M 5	20 E 5	Received	at my Lodgins	Ch	O	05.0	F	pr	O
20 M 6		$\frac{1}{4}$		M	O	$\frac{3}{4}$	F	fill	O
20 M p 9		$\frac{1}{8}$	$\frac{3}{4}$						
20 New					70.5				
					57.4				
					51.2				
20 E 3		$\frac{1}{8}$	$\frac{1}{4}$	M	O	$\frac{1}{8}$ B	dr	D°	O
20 E 7		$\frac{1}{8}$	$\frac{1}{8}$	01.0	Ch	Ch	O	F	O

Transfer

Sunday

N° 2 is broke, and Notice to set a new N° 4 is $\frac{1}{4}$

N° 5 is declared at N° 4 crack'd 07.0

N° 1, is a New

N° 4 is broke, and Notice to set a new

N° 2 is charged as

This Survey and last

Metal Pot int

05.0 h from T

Charge

Part o Pot int

full, I

Decla

	N ^o of Pots	White declar'd Weight	D ^o gag'd Weight	N ^o of Pots	Green declar'd Weight	D ^o gag'd Weight
	1	8.0.24	8.0.24	4	15.3.26	15.3.26
	2	6.2.15	Broke		16.3.11	16.0.21
	3	5.3.15	5.3.15			
July	14, 3	14.0.11	14.0.11	15, 2	32.3. 9	32.0.19
				4	15.3.26	11.3.26
				5	16.3.11	14.3.15
Metal loft Pot into N ^o 2 Dimens. enter'd in Dimen. Book						
	17, 2	9.1.10	9.3. 3	16, 2	32.3. 9	26.3.12
05.0 being crack'd 03.0 from Top from Top				4	15.3.26	Broke
				5	14.3.15	14.3.15
Charge without a Declaration, being in- } creas'd with Cullet }				17, 2	14.3.15	4.3.1
Part of Metal loft	18, 1		7.0.12			
Pot into N ^o 4, Dimens. enter'd in Dimen. Book	18, 3	5.3.15	5.3.15			
full, Depth being increased by Clay				19, 5	14.3.15	14.3.
				4	13.3.16	
				5	14.3.15	
				20, 2	transfer	red
Declaration carried forwards						

An Explanation of the Glafs Leidger, from Mr. Samuel Ogden and Co.

AT the Head of each Column over the N^o of Pots are entered the Depth of each Pot, and under them the Area's for Flint and Bottles : On each survey are entered Characters to denote the Condition of the Metal and Materials in each Pot, also the Condition of the Annealing Ovens, *viz.* (O) denotes the Pots or Annealing Ovens to be empty ; (Ch) signifies the Pots are charging and filling with Materials ; and the Letter (M) denotes the Materials to be melting or founding. When Numbers are inserted, they shew the dry Inches of the Pots when Gages are taken of the Fluid Metal. Letter (P) signifies a small Part of the Metal is wrought. The common Fractions, *viz.* $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, &c. denotes the Metal in such Pot to be nearest to that Quantity. The Letters (Pr) signify such Annealing Oven to be preparing or heating for receiving of GLASS to anneal, and (fill^g) denotes such Kiln to be filling with GLASS.

The

The Letter (F) shews such Kiln to be full, or no more GLASS to be put in that Journey, and the Fire damp't or extinguished. (dr) signifies the GLASS is a Drawing or taking out of the Annealing Kilns. In the Transfer is a Notice for filling N^o 1, 2, and 3, on 15 M. 4. received in Old Book 14 N^o. On 16 E. 11. (Br) in entered under N^o 2. which denotes it to be broke, and the Metal being all lost before gaged, the Declaration is cancelled, and not charged. On 17 M. 5. there was a Notice given for a new Pot to be set into N^o 2, which was gaged, and the Dimensions entered in the Dimension-Book 17 M. 8. to M. 9 N^o 4. entered $\frac{1}{2}$ by Mistake, is cancelled and signified to be $\frac{1}{4}$. On the 17th is a new Pot set into N^o 2, when the Area and Depth thereof are inserted before charged. 17 E. 9. a Notice was given for N^o 4 and 5, when N^o 5 is declared at 05.0 Inches being cracked 3 Inches from the Top. 18 M. 2. N^o 4, being found to be cracked 7 Inches from the Top, the Pot was 8 Inches dry, and so charged. 18 M. 7, the dry Inches of N^o 1, and 3. being taken when Part wrought out; at M. 10. a Discovery was made of N^o 1, being new charged without Declaration, and increased from 11.0 dry to 04.0 dry, is accordingly set forward in Charge.

Charge. 18 E. p. 3. N^o 4, is signified to be broke, and 2 : 1 : 0 Metal lost, which being charged, is entered in Page 42. for an Allowance. 18 E. 10. is a Notice to set a new Pot into N^o 4. which is gaged, and the Dimensions entered in the Dimension-Book. 19 M. 11. N^o 2, is denoted as full, and charged accordingly, fresh Clay having been daubed on the Pot's Mouth, whereby the Depth was increased. 20 M. 5. the Officer received a Notice at his Lodgings to fill N^o 4 and 5, at 20 E. 5. On the 20th a new Pot was set into N^o 4. and the Area's thereof are entered in the proper Column before charged.

Upon the Filling of each Pot you must put a Character over the first Survey thereof, to denote the Species declared; and if afterwards you find it of a Quality liable to be charged with a higher Duty, you must then put the proper Character over it. The Characters are F for Flint, W for Crown, Phial, and White Broad GLASS, P for Plate, G for Green Broad GLASS at 2s. 4d. and B for Bottles.

Samuel Ogden and Co. Charges
collected.

	Date	White.	Green.
		C. Q. lib.	C. Q. lib.
	July 14	14.0.11	
	15		32.0.19
	16		26.3.13
	17	9.3.3	
	17		14.3.15
	18	7.0.12	
	18	5.3.15	
	19		14.3.15
	Odds	0.1.—	0.2.—
£ 22 . 10 . 1		36.3.—	88.3.—
		.13	6

Entry at Book-End.

	Glas - Maker's Names.	N ^o of Pots de- clared.	Time of Charging.
N ^o	<i>July 14=</i> <i>Samuel Ogden & Co.</i> None else to transfer	3	15 M 4
M 6 M 10	<i>15=</i> <i>Samuel Ogden & Co.</i> None else to enter	2	15 E 6
E 10	<i>15=</i> None to enter		
M 6	<i>16=</i> None to enter		
E 11 17 M 6	<i>16=</i> <i>Samuel Ogden & Co.</i> None else to enter	2	17 M 11
M 9 M 11	<i>17=</i> <i>Samuel Ogden & Co.</i> None else to enter	01	17 E 9
E p 9 E 10	<i>17=</i> <i>Samuel Ogden & Co.</i> None else to enter	01	18 E 1

35.0 37.0 34.0 35.5

1 2 3 4 1 2 3 4 5 6 7

1756 July	Time of Charging	64.7 53.8 44.5 39.3	70.6 57.3 47.1 40.8	68.6 55.6 50.3 43.9	68.6 61.0 55.6 43.0			Annea Oven	nlis s.						
15 E 1	16 M 1														
15 E 8		O	O	O	O		O	O	O	O	O	O	O	O	} Transfer
16 M 4		G	G	W	W										
16 E 10		Ch	Ch	Ch	Ch	...	O	O	O	O	O	O	O	O	} Sunday
17 M 5		02.0 $\frac{1}{4}$ G	03.0 D°	M	M	...	pr fillg	O	pr fillg	O	O	O	O	O	
17 M 10		14.0	$\frac{1}{3}$	$\frac{1}{2}$	D°		D°	O	D°	fillg	O	O	O	O	N° 1 is a new
17 E 2	18 M 4	Sent to my	Lo	dging	gs		at	M	11						Charge,
17 E 6		O	O	O	O	...	F	O	F	F	O	O	O	O	to 14
18 M 6		W	W	W	W										
18 E 9		Ch	Ch	Ch	Ch		F	O	F	F	O	O	O	O	
18 E 9		M	M	M	M	...	O	pr	F	F	pr	O	O	O	
19 M 6	19 E 6	02.0	4.0	03.0	03.0		O	D°	dr	O	D°	O	O	O	N° 2 is ded
19 M 9	19 { E.9 } { E.12 } { 1 & 3 } { 2 & 4 }	D	$\frac{1}{3}$	D°	$\frac{1}{3}$...	O	fillg	O	O	D°	O	O	O	Notice at M
19 M 11		$\frac{3}{4}$	O	$\frac{1}{3}$	O		O	F	O	O	fillg	O	O	O	
19 E 4		O	O	O	O	...	O	F	O	O	F	O	O	O	
19 E 9		W		W											
19 E 9		Ch	O	Ch	O		O	F	O	O	F	O	O	O	
20 M p 2		Ch	G	Ch	G		O	O	O	O	F	O	O	O	
20 E 5		M	04.0	M	03.0		O	O	pr	pr	F	pr	O	O	
20 E 10	21 Nn	03.0	$\frac{1}{2}$	03.0	D°	...	O	O	fillg	D°	O	D	O	O	N° 2 is White
21 M 4		$\frac{1}{8}$	O	P	$\frac{1}{8}$		O	O	F	fillg	O	fillg	O	O	Glaß
21 M 7		O	O	O	O	...	O	O	F	F	O	F	O	O	N° 3 is broke
21 E 2		W	W	W	W										and Pa
21 E 2		Ch	Ch	O	Ch		O	O	F	F	O	F	O	O	
22 M 6		M	M	O	M	...	pr	O	O	F	O	F	O	O	
22 E 1		W													
22 E 1		Ch	M	O	M		F	O	O	O	O	F	O	O	1st Kiln is
22 E 4		M	M	O	M	...	F	O	O	O	pr	F	pr	pr	filled f
22 E 11	23 Nn	03.0	04.0	O	03.0		F	O	O	O	D°	O	D°	D°	with
23 M 5		D°	$\frac{1}{8}$	O	O	...	F	O	O	O	F	O	fillg	O	
23 M 10		$\frac{1}{4}$ G	W	O	O		O	O	O	O	F	O	D°	O	
3 E 2		Ch	Ch	O	Ch		O	O	O	O	F	O	F	F	Transferred

Charge,
to 14red at o.
tions

6 E. for

Glaß
and Pafilled f
with

	N ^o of Pots	White declar'd Weight	D ^o gag'd Weight	N ^o of Pots	Green declar'd Weight	D ^o gag'd Weight
transfer	3	12.2.17	12.2.17	1	12.0. 5	12.2.14
	4	14.0.20	13.2. 8	2	13.1.17	14.0. 4
July	15, 2	26.3. 9	26.0.25	15, 2	25.1.22	26.2.18
unday						
is a new						
Charge, without Notice, being increased } to 14.0 dry Inches }	1	12.2.14	12.2.14			
	2	14.0. 4	13.1.17	17, 1		6.2. 8
	3	12.2.17	12.2.17			
	4	13.2. 8	14.0.20			
red at 04.0, and N ^o 4. at 03.0 their Posi- } tions being alter'd }	17, 4	52.3.15	52.3.12			
	1	12.2.14				
	2	13.1.17				
	3	12.2.17				
6 E. for E. 6 is void and cancelled	4	14.0.20				
	19, 4	declare d void				
	1	12.2.14	12.0. 5	2	13.1.17	Chd White
	3	12.2.17	12.2.17	4	14.0.20	14.0.20
	19, 2	25.1. 3	24.2.22	19, 2	14.0.20	14.0.20
White						
Glafs	20, 2		14.0. 4			
and Part Metal lost	1	12.2.14	12.0. 5			
	2	13.1.17	13.1.17			
	3	12.2.17	Broke			
	4	14.0.20	14.0.20			
filled since last Survey, and N ^o 1 filled } without a Declaration }	20, 4	40.0.23	39.2.14			
	22, 1		12.0. 5			
	22, 2	23.1.17	transferred			
				1	12.2.14	
				4	14.0.20	
ferred				22, 2	transferred	

An Explanation of the Glasf Leidger, for Mr. John Cook- son and Co.

IN the Transfer is a Notice for filling all the Pots at 16 M. 1. which was received 15 E. 1. in old Book. 17 M. 10 N^o 1. was discovered to be increased without Notice from $\frac{1}{4}$ to 14.0 dry Inches, and the Whole set forward in the Charge, viz, ^{c.} 6 : ^{qr.} 2 : ^{lib.} 8 Green; 17 E. 2. is a Notice being sent to the Officers Lodgings at M. 11. for filling N^{os} 1, 2, 3, and 4. on 18 M. 4. 19 M. 6. is a Notice given for filling all the Pots at E. 6. when the Declarations for N^{os} 2, and 4. vary from the former on their Positions being altered; 19 M 9. the Trader giving a fresh Declaration to fill all the Pots at E. 9. and E. 12. declared the former Notice given at M. 6. to be void, which is cancelled accordingly. 20 E. 10 N^o 2 is discovered to be White GLASS, and so charged, which was declared for Green. 21 M. 7. N^o 3. is broke, and Part of the Metal lost, for which an Allowance is to be given, being charged at 03.0 Inches dry. 22 E. 1. first annealing Kiln being filled since last Journey, discovered N^o 1. to be charged a-new without Notice, the Declaration is set forward in Charge, there being no Gage thereof, and the subsequent fraudulent Filing is charged distinctly from Gage 22 E. 11.

Samuel

Specimen Paper, Samuel Ogden and Co.

1756 July	Time of Charg- ing.	1	2	3	4	5	6	7	8	9	10
14 N ^o	15 M 4	F	F	F							
14 E 8		8.0.24	6.2.15	5.1.15							
15 M 6	15 E 6				B	B					
15 M 11					15.3.26	16.3.11					
15 E 6											
15 E 9											
16 M 5											
16 E 11	17 M 11				B	B					
					15.3.26	16.3.11					

Note, N^o 2. is broke, and Metal lost

Explanation.

ON *July* 14, Noon, a Notice was given to charge the 1st, 2d, and 3d Pots on 15 M 4; and the Weight of the Materials and the Species of GLASS declared for each Pot, are entered in the proper Columns. 16 E 11, a Notice was given to charge the 4th and 5th Pots; 17 M 11, the Weight of the Materials and Species of GLASS declared for such Pots, are entered in the proper Columns, and N^o 2 is discovered to be broke, and Metal lost.

DIRECTIONS for Surveying Glafs-Houses in Courfing Divifions.

July 17 M 6	Pots all empty	18 M 8 to M9 continued.	18 E 8
Notice to charge	17 E 7	Notice to charge	18 E 8
1 Pot	10 - 1 - 24	1 Pot	10 - 1 - 24
2 Pot	10 - 0 - 21	2 Pot	10 - 0 - 21
3 Pot	11 - 1 - 0	4 Pot	11 - 2 - 0
4 Pot	11 - 2 - 0		
	} Bottles		} Bottles
	43 - 1 - 17		32 - 0 - 17
		1 ft, 2d, & 4th annealing	Ovens pr.
1 ft & 4th annealing	Ovens empty	and 3d. empty.	
2d & 3d full			
17 E 5	Pots all empty	18 p. N°	
1 ft, 2d, & 4th annealing	Ovens	1 Pot	$\frac{1}{2}$
empty. 3d Oven full		2 Pot	$\frac{1}{3}$
		4 Pot	$\frac{1}{4}$
		3 Pot broke	
		1 ft, 2d & 4th annealing	Ovens fill
		ling. 3d Oven empty.	
17 E 8			
1 ft, 2d, 3d, & 4th Pots	charging	18 E 4	
Annealing Ovens all	empty	1 Pot	$\frac{1}{8}$
		2 Pot	$\frac{1}{8}$
18 M 5		4 Pot	empty.
1 ft, 2d, and 4th Pots	melting	3 Pot	broke
3d Pot broke & Metal	loft. 1 ft,	1 ft, & 2d annealing	Ovens fill
2d & 4th annealing	Ovens pr. &	ling. 3d Oven empty, and 4th	full.
3d empty.			
18 M 8 to M9		18 E 8	
1 Pot 04.0		1 ft, 2d, and 4th Pots	charging.
2 Pot 02.0		3d Pot broke	
4 Pot 03.0		1 ft, 2d, and 4th annealing	Ovens
3 Pot broke.		full, and 3d empty.	
Notice to set a new Pot into N° 3	Dimensions entered in Dimenfi-		
on Look.			

A S C H E M E for Officers Journal or Entry in Courting Divisions.

July 17 =	
<i>John Thomas</i> ———	M 6
<i>Tho. Williams</i> ———	Noon
<i>Henry Mason</i> ———	E 6
<i>John Thomas</i> ———	E 12
D ^o 18 =	
<i>Tho. Williams</i> ———	M 6
<i>Henry Mason</i> ———	Noon
<i>John Thomas</i> ———	E 6

Plate Area.

	0	1	2	3	4	5	6	7	8	9
16	21.91	22.19	22.47	22.74	23.02	23.30	23.59	23.87	24.16	24.45
17	24.74	25.03	25.32	25.62	25.92	26.22	26.52	26.82	27.12	27.43
18	27.74	28.04	28.36	28.67	28.98	29.30	29.62	29.93	30.26	30.58
19	30.90	31.23	31.56	31.89	32.22	32.55	32.89	33.22	33.56	33.90
20	34.24	34.59	34.93	35.27	35.63	35.98	36.33	36.68	37.04	37.39
21	37.75	38.12	38.47	38.84	39.21	39.57	39.94	40.31	40.69	41.06
22	41.44	41.81	42.19	42.57	42.96	43.34	43.72	44.11	44.50	44.89
23	45.29	45.68	46.08	46.48	46.88	47.28	47.68	48.09	48.49	48.90
24	49.31	49.72	50.14	50.55	50.97	51.39	51.81	52.23	52.65	53.08
25	53.51	53.94	54.37	54.80	55.23	55.67	56.11	56.54	56.99	57.43
26	57.87	58.32	58.77	59.22	59.67	60.12	60.58	61.03	61.49	61.95
27	62.41	62.88	63.34	63.81	64.27	64.74	65.22	65.69	66.17	66.64
28	67.12	67.60	68.08	68.57	69.05	69.54	70.03	70.52	71.01	71.51
29	72.00	72.50	73.00	73.50	74.00	74.50	75.01	75.52	76.03	76.54
30	77.05	77.57	78.08	78.60	79.12	79.64	80.17	80.68	81.22	81.75
31	82.28	82.80	83.34	83.88	84.41	84.95	85.49	86.03	86.58	87.12
32	87.67	88.22	88.77	89.28	89.87	90.43	90.98	91.55	92.11	92.67
33	93.23	93.80	94.37	94.94	95.51	96.08	96.65	97.23	97.81	98.39
34	98.97	99.55	100.14	100.72	101.31	101.90	102.49	103.08	103.68	104.28
35	104.88	105.48	106.08	106.68	107.29	107.89	108.50	109.11	109.73	110.34
36	110.96	111.57	112.19	112.81	113.43	114.06	114.68	115.31	115.94	116.57
37	117.21	117.84	118.48	119.11	119.75	120.39	121.04	121.68	122.33	122.98
38	123.63	124.28	124.93	125.59	126.24	126.90	127.56	128.22	128.89	129.55
39	130.22	130.89	131.56	132.23	132.90	133.58	134.26	134.94	135.62	136.30
40	136.90	137.67	138.35	139.04	139.74	140.43	141.12	141.81	142.52	143.22

Flint Area

	0	1	2	3	4	5	6	7	8	9
10	9.28	9.47	9.66	9.85	10.04	10.23	10.43	10.63	10.83	11.03
11	11.23	11.44	11.65	11.85	12.06	12.28	12.49	12.71	12.92	13.14
12	13.37	13.59	13.82	14.04	14.27	14.50	14.74	14.97	15.21	15.45
13	15.69	15.93	16.18	16.42	16.67	16.92	17.17	17.42	17.68	17.93
14	18.20	18.46	18.72	18.98	19.25	19.52	19.79	20.06	20.33	20.61
15	20.89	21.17	21.45	21.73	22.02	22.30	22.59	22.88	23.18	23.47
16	23.77	24.07	24.36	24.67	24.97	25.28	25.58	25.89	26.20	26.52
17	26.83	27.15	27.46	27.79	28.11	28.43	28.76	29.09	29.42	29.75
18	30.08	30.42	30.75	31.10	31.43	31.78	32.12	32.46	32.81	33.16
19	33.52	33.87	34.23	34.58	34.94	35.30	35.67	36.03	36.40	36.77
20	37.14	37.51	37.88	38.26	38.64	39.02	39.40	39.78	40.17	40.56
21	40.94	41.33	41.73	42.12	42.52	42.93	43.32	43.72	44.12	44.53
22	44.94	45.35	45.76	46.17	46.58	47.00	47.42	47.84	48.26	48.69
23	49.12	49.54	49.97	50.40	50.84	51.27	51.71	52.15	52.59	53.03
24	53.48	53.93	54.37	54.82	55.28	55.73	56.19	56.64	57.10	57.56
25	58.03	58.49	58.96	59.43	59.91	60.37	60.85	61.32	61.80	62.28
26	62.76	63.25	63.73	64.22	64.71	65.20	65.69	66.19	66.69	67.19
27	67.69	68.19	68.69	69.20	69.70	70.22	70.73	71.24	71.75	72.27
28	72.79	73.31	73.84	74.36	74.89	75.41	75.95	76.48	77.01	77.55
29	78.09	78.62	79.17	79.71	80.25	80.80	81.35	81.90	82.45	83.00
30	83.56	84.12	84.68	85.24	85.86	86.37	86.94	87.51	88.08	88.65

Crown and Broad Area's.

	0	1	2	3	4	5	6	7	8	9
15	16.80	17.02	17.25	17.48	17.71	17.94	18.17	18.40	18.64	18.88
16	19.11	19.35	19.59	19.84	20.08	20.33	20.58	20.82	21.07	21.33
17	21.58	21.83	22.09	22.35	22.61	22.87	23.13	23.39	23.66	23.92
18	24.19	24.46	24.73	25.01	25.29	25.56	25.83	26.11	26.39	26.67
19	26.96	27.24	27.53	27.81	28.10	28.39	28.69	28.98	29.27	29.57
20	29.87	30.17	30.47	30.77	31.08	31.37	31.69	32.00	32.31	32.62
21	32.93	33.25	33.56	33.88	34.20	34.52	34.84	35.16	35.49	35.82
22	36.14	36.47	36.80	37.13	37.46	37.81	38.14	38.48	38.82	39.16
23	39.50	39.85	40.19	40.54	40.89	41.24	41.59	41.94	42.30	42.65
24	43.01	43.37	43.73	44.09	44.46	44.82	45.19	45.56	45.93	46.30
25	46.67	47.05	47.42	47.80	48.18	48.56	48.94	49.32	49.71	50.09
26	50.48	50.87	51.26	51.65	52.05	52.44	52.84	53.24	53.64	54.04
27	54.44	54.84	55.25	55.66	56.07	56.47	56.89	57.30	57.71	58.13
28	58.55	58.97	59.39	59.81	60.23	60.66	61.08	61.52	61.94	62.37
29	62.80	63.24	63.67	64.11	64.55	64.99	65.43	65.87	66.32	66.76
30	67.21	67.66	68.11	68.56	69.01	69.47	69.92	70.38	70.84	71.30
31	71.77	72.23	72.69	73.16	73.63	74.10	74.57	75.04	75.52	75.99
32	76.47	76.95	77.43	77.91	78.39	78.88	79.37	79.85	80.34	80.83
33	81.33	81.82	82.31	82.81	83.31	83.81	84.31	84.81	85.32	85.82
34	86.33	86.84	87.35	87.86	88.37	88.89	89.40	89.92	90.44	90.96
35	91.48	92.01	92.53	93.06	93.58	94.11	94.65	95.18	95.71	96.25
36	96.78	97.32	97.86	98.40	98.95	99.49	100.04	100.58	101.13	101.68
37	102.24	102.79	103.34	103.90	104.46	105.02	105.58	106.14	106.70	107.27
38	107.84	108.41	108.98	109.55	110.12	110.69	111.27	111.85	112.43	113.01
39	113.59	114.17	114.76	115.34	115.93	116.52	117.11	117.70	118.30	118.89
40	119.49	120.09	120.69	121.29	121.89	122.49	123.10	123.71	124.32	124.92
41	125.54	126.15	126.76	127.38	128.00	128.61	129.24	129.86	130.48	131.11
42	131.74	132.36	132.99	133.62	134.26	134.89	135.53	136.16	136.80	137.44
43	138.08	138.73	139.37	140.02	140.66	141.31	141.96	142.62	143.27	143.92
44	144.58	145.25	145.90	146.56	147.22	147.89	148.55	149.21	149.89	150.56

Phial and Bottle Area's.

	0	1	2	3	4	5	6	7	8	9
15	17.36	17.59	17.82	18.06	18.29	18.53	18.77	19.02	19.25	19.50
16	19.75	20.00	20.25	20.50	20.75	21.00	21.26	21.51	21.77	22.03
17	22.29	22.55	22.82	23.09	23.36	23.63	23.90	24.17	24.44	24.72
18	25.00	25.27	25.55	25.84	26.12	26.41	26.69	26.98	27.27	27.56
19	27.85	28.15	28.44	28.74	29.04	29.34	29.64	29.94	30.25	30.55
20	30.86	31.17	31.48	31.79	32.11	32.42	32.74	33.06	33.38	33.70
21	34.02	34.35	34.67	35.00	35.33	35.66	36.00	36.33	36.67	37.00
22	37.34	37.67	38.02	38.37	38.71	39.06	39.41	39.76	40.11	40.46
23	40.81	41.17	41.53	41.89	42.25	42.61	42.97	43.34	43.70	44.07
24	44.44	44.81	45.18	45.56	45.93	46.30	46.69	47.07	47.45	47.84
25	48.22	48.61	49.00	49.39	49.78	50.17	50.56	50.96	51.36	51.76
26	52.16	52.56	52.96	53.37	53.77	54.17	54.59	55.00	55.42	55.83
27	56.25	56.66	57.07	57.50	57.92	58.34	58.77	59.20	59.63	60.06
28	60.49	60.92	61.36	61.79	62.23	62.67	63.11	63.55	64.00	64.44
29	64.89	65.34	65.79	66.24	66.69	67.14	67.60	68.06	68.52	68.98
30	69.44	69.90	70.37	70.84	71.30	71.77	72.25	72.72	73.19	73.67
31	74.15	74.63	75.11	75.59	76.07	76.55	77.05	77.53	78.02	78.51
32	79.01	79.50	80.00	80.50	81.00	81.50	82.00	82.50	83.01	83.52
33	84.02	84.53	85.04	85.56	86.07	86.59	87.10	87.63	88.15	88.67
34	89.19	89.72	90.25	90.77	91.30	91.84	92.37	92.90	93.44	93.98
35	94.52	95.06	95.60	96.14	96.69	97.24	97.79	98.34	98.89	99.44
36	100.00	100.55	101.11	101.67	102.23	102.79	103.36	103.92	104.49	105.06
37	105.63	106.20	106.77	107.35	107.92	108.50	109.08	109.66	110.25	110.83
38	111.42	112.00	112.59	113.18	113.77	114.37	114.96	115.55	116.16	116.76
39	117.36	117.96	118.56	119.17	119.78	120.39	121.00	121.61	122.22	122.84
40	123.45	124.07	124.69	125.31	125.93	126.56	127.18	127.81	128.44	129.07
41	129.70	130.37	130.97	131.61	132.25	132.89	133.53	134.17	134.81	135.46
42	136.11	136.76	137.41	138.06	138.71	139.37	140.02	140.68	141.34	142.01
43	142.67	143.33	144.00	144.66	145.33	146.00	146.67	147.35	148.02	148.70
44	149.38	150.06	150.74	151.42	152.11	152.79	153.48	154.17	154.86	155.55

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